IN THE CLAIMS

1. (currently amended)   A risk-informed method for safety analyses of nuclear power generating systems, said method comprising:

ordering events by an initiating event frequency;

defining an initiating event frequency threshold value;

defining acceptance criteria having an adjusted amount of conservatism, wherein the amount of conservatism is a function of the initiating event frequency; ~~and~~

determining if an event has an event initiating frequency at or above the threshold value;

determining if an event has an event initiating frequency below the threshold value; and

determining if a nuclear power generating system meets licensing requirements by:

analyzing an event by a deterministic safety analysis methodology when the event has an event initiating frequency at or above the threshold value; or

analyzing an event by a probabilistic risk assessment methodology when the event has an event initiating frequency below the threshold value.

2. (original)   A method in accordance with Claim 1 further comprising determining an amount of conservatism used in the deterministic safety analysis methodology, wherein the amount of conservatism is a function of the initiating event frequency.

3. (original)   A method in accordance with Claim 2 further comprising:

identifying additional system failures that are not a direct consequence of the initiating event;

defining a total threshold frequency for the combination of the initiating event frequency and the additional failure frequency; and

adding additional system failures to the safety analysis, one at a time, until a total frequency of an event plus additional failures is less than the total threshold frequency when the initiating event frequency is above the total threshold frequency.

4. (currently amended)   A method in accordance with Claim 2 wherein determining an amount of conservatism used in the deterministic safety analysis methodology comprises developing at least one deterministic safety analysis methodology containing a predetermined amount of ~~conservative~~ conservatism based on the initiating event frequency, wherein the predetermined amount of conservatism used in a deterministic safety analysis methodology is a function of the difference between the initiating event frequency and the initiating event frequency threshold value.

5. (currently amended)   A method in accordance with Claim 1 wherein defining acceptance criteria having an adjusted amount of conservatism comprises developing at least one acceptance criteria containing a predetermined amount of ~~conservative~~ conservatism, based on the initiating event frequency, wherein the predetermined amount of conservatism for an acceptance criteria is a function of the difference between the initiating event frequency and the initiating event frequency threshold value.

6. (currently amended)   A system for performing risk-informed safety analyses of nuclear power generating systems, said system comprising a computer configured to:

order events by an initiating event frequency;

define an initiating event frequency threshold value;

define acceptance criteria having an adjusted amount of conservatism, wherein the amount of conservatism is a function of the initiating event frequency; ~~and~~

determine if an event has an event initiating frequency at or above the threshold value;

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determine if an event has an event initiating frequency below the threshold value; and

determine if a nuclear power generating system meets licensing requirements by:

~~analyze~~ analyzing an event by a deterministic safety analysis methodology when the event has an event initiating frequency at or above the threshold value; or

~~analyze~~ analyzing an event by a probabilistic risk assessment methodology when the event has an event initiating frequency below the threshold value.

7. (original)   A system in accordance with Claim 6 wherein said computer is further configured to determine an amount of conservatism used in the deterministic safety analysis methodology, wherein the amount of conservatism is a function of the initiating event frequency.

8. (original)   A system in accordance with Claim 7 wherein said computer is further configured to:

identify additional system failures that are not a direct consequence of the initiating event;

define a total threshold frequency for the combination of the initiating event frequency and the additional failure frequency; and

add additional system failures to the safety analysis, one at a time, until a total frequency of an event plus additional failures is less than the total threshold frequency when the initiating event frequency is above the total threshold frequency.

9. (currently amended)   A system in accordance with Claim 7 wherein said computer is further configured to develop at least one deterministic safety analysis methodology containing a predetermined amount of ~~conservative~~ conservatism based on the initiating event frequency, wherein the predetermined amount of conservatism used in a deterministic safety

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analysis methodology is a function of the difference between the initiating event frequency and the initiating event frequency threshold value.

10. (currently amended)   A system in accordance with Claim 6 wherein said computer is further configured to develop at least one acceptance criteria containing a predetermined amount of ~~conservative~~ conservatism based on the initiating event frequency, wherein the predetermined amount of conservatism for an acceptance criteria is a function of the difference between the initiating event frequency and the initiating event frequency threshold value.

11. (currently amended)   A computer program embodied on a computer readable medium for performing risk-informed safety analyses of nuclear power generating systems, said program comprising a code segment that:

orders events by an initiating event frequency;

defines an initiating event frequency threshold value;

defines acceptance criteria having an adjusted amount of conservatism, wherein the amount of conservatism is a function of the initiating event frequency; ~~and~~

determines if an event has an event initiating frequency at or above the threshold value;

determines if an event has an event initiating frequency below the threshold value; and

determines if a nuclear power generating system meets licensing requirements by:

~~analyzes~~ analyzing an event by a deterministic safety analysis methodology when the event has an event initiating frequency at or above the threshold value; or

~~analyzes~~ analyzing an event by a probabilistic risk assessment methodology when the event has an event initiating frequency below the threshold value.

12. (original) A computer program in accordance with Claim 11 further comprising a code segment that determines an amount of conservatism used in the deterministic safety analysis methodology, wherein the amount of conservatism is a function of the initiating event frequency.

13. (original) A computer program in accordance with Claim 12 further comprising a code segment that:

identifies additional system failures that are not a direct consequence of the initiating event;

defines a total threshold frequency for the combination of the initiating event frequency and the additional failure frequency; and

adds additional system failures to the safety analysis, one at a time, until a total frequency of an event plus additional failures is less than the total threshold frequency when the initiating event frequency is above the total threshold frequency.

14. (currently amended)   A computer program in accordance with Claim 11 further comprising a code segment that develops at least one deterministic safety analysis methodology containing a predetermined amount of ~~conservative~~ conservatism based on the initiating event frequency, wherein the predetermined amount of conservatism used in a deterministic safety analysis methodology is a function of the difference between the initiating event frequency and the initiating event frequency threshold value.

15. (currently amended)   A computer program in accordance with Claim 11 further comprising a code segment that develops at least one acceptance criteria containing a predetermined amount of ~~conservative~~ conservatism based on the initiating event frequency, wherein the predetermined amount of conservatism for an acceptance criteria is a function of the difference between the initiating event frequency and the initiating event frequency threshold value.